

What is claimed is:

1. A crew locator system for distributing field crew position data gathered from a global positioning system to a geographically distributed field crew, comprising:

5 a wireless communication network;

an enterprise computing system in communication with said wireless network, said enterprise computing system operable to receive field crew position data, store the field crew position data, and in response to requests for the field crew position data transmit the field crew position data; and

10 a first mobile field unit in communication with said wireless network, said first mobile field unit operable to gather position data transmitted from a global positioning system and transmit the field crew position data to said enterprise computing system.

15 2. The crew locator system of claim 1 wherein the position data comprises values corresponding to location, speed, and direction of said first mobile field unit.

20 3. The crew locator system of claim 1 further comprising a second mobile field unit in communication with said wireless communication network, said second mobile field unit operable to request the field position data from said enterprise computing system and display the field position data.

25 4. The crew locator system of claim 3 wherein said second mobile field unit is further operable to request position data directly from said first mobile field unit and display the position data.

30 5. The crew locator system of claim 1, wherein said first mobile field unit comprises a receiver operable to

- 26 -

receive global position data transmitted from a global positioning system, a modem operable to transmit the field position data over said wireless network, and a first processor.

5 6. The crew locator system of claim 5 wherein said first processor has executable instructions thereon for communicating with said wireless radio modem, communicating with said receiver, processing position data received from said receiver, accepting requests for position data, and
10 transmitting position data upon request.

7. The crew locator system of claim 3, wherein said second mobile field unit comprises a display for displaying position data, server software for receiving the position
15 data, and browser software for browsing and interacting with web pages.

8. The crew locator system of claim 1, wherein said enterprise computing system formats the position data into a first file and a second file prior to transmitting the
20 position data.

9. The crew locator system of claim 8, wherein said first file is a MIME type file and said second file is an HTML type file and contains a reference to said first file.

10. The crew locator system of claim 1, wherein said
25 first field unit is operable to transmit field position data either immediately in response to a request or at regularly scheduled intervals.

11. The crew locator system of claim 10 wherein said regularly scheduled intervals are timed intervals.

- 27 -

12. The crew locator system of claim 10 wherein said regularly scheduled intervals are based on distance traveled by said mobile field unit.

13. The crew management system of claim 1, wherein said wireless communication network supports TCP/IP communication protocol.

14. The crew locator system of claim 5, wherein said mobile field unit further comprises a mobile computing device having a computing processor.

15. The crew locator system of claim 14, wherein said computing processor and said first processor are the same processor.

16. The crew locator system of claim 15, wherein said first processor is in communication with said radio modem over a serial port.

17. The crew locator system of claim 5, wherein said first processor has instructions thereon for implementing a UDP server and a UDP client application for fielding requests for position data.

18. The crew locator system of claim 5, wherein said UDP server is operable to receive a command to transmit position data.

19. The crew locator system of claim 18, wherein said command is to determine the internet protocol address and port address of the machine from which the command was sent and immediately transmit a UDP packet with position data to said internet protocol address and said port address.

- 28 -

20. The crew locator system of claim 18, wherein said command is to store a primary destination internet protocol address and transmit position data to said primary address at specified intervals.

5 21. The crew locator system of claim 18, wherein said command is to store a secondary destination internet protocol address and transmit position data to said secondary address at specified intervals.

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10 22. The crew locator system of claim 20, wherein said interval is defined in time.

23. The crew locator system of claim 20, wherein said interval is defined in distance traveled.

24. The crew locator system of claim 1, wherein said enterprise computing system comprises an enterprise UDP
15 server for receiving and processing position data transmitted from said first mobile unit.

25. The crew locator system of claim 1, wherein said enterprise computing system further comprises a wireless
tcp/ip radio modem in communication with said enterprise UDP
20 server and from which position data is received from said first mobile field unit.

26. The crew locator system of claim 24, wherein said enterprise UDP server parses the position data and stores the position data in at least one file.

25 27. The crew locator system of claim 24, wherein said enterprise UDP server parses the position data and stores the position data in a database.

28. The crew locator system of claim 1, wherein said enterprise computing system further comprises an HTTP server for receiving HTTP requests and a plurality of common gateway interface scripts for interfacing with the stored position data.

29. The crew locator system of claim 28, wherein said HTTP server is in operable communication with said wireless radio modem and thereby can accept a position data request from said second mobile field unit, process said position data requests, and return position data.

30. The crew locator system of claim 28, wherein said HTTP server upon receiving position data request causes a first of said plurality of common gateway interface scripts to access said database, generate a HTTP field unit list page, and transmit said HTTP field unit list page to said HTTP server for transmitting to said second mobile unit, said HTTP field unit list page causing a list of field units to be displayed when loaded in a web browser.

31. The crew locator system of claim 28, wherein said HTTP server upon receiving position data request causes a second of said plurality of common gateway interface scripts to retrieve position data from said database relevant to one of said field units defined in said HTTP field unit list page and return said position data to said HTTP server for transmitting to said second field unit.

32. The crew locator system of claim 31, wherein said position data comprises a first file and a second file.

33. The crew locator system of claim 32, wherein said first file is an HTML file.

34. The crew locator system of claim 32, wherein said second file is a MIME type file.

35. The crew locator system of claim 34, wherein said second file comprises values corresponding to location,
5 velocity, and direction.

36. The crew locator system of claim 1, further comprising:

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10 a third mobile field unit in communication with said wireless network, said third mobile field unit operable to request the field position data from said first mobile field unit, received the field position data, and display the field position data, wherein said first mobile field unit is operable to transmit the field crew position data to said third mobile field unit.

15 37. The crew locator system of claim 1, wherein said first mobile field unit is operable to simultaneously transmit the field crew position data to said third mobile field unit and said enterprise computing system.

20 38. A method for distributing field crew position data in a system having a plurality of mobile field units, an enterprise system, and a TCP/IP wireless network, comprising the following steps:

25 (a) at a first mobile field unit, gathering and processing position data;

(b) at the first mobile field unit, receiving and processing a request to forward the position data to the enterprise system;

30 (c) at the first mobile field unit, transmitting the position data to the enterprise system;

(d) at the enterprise system, processing and storing the position data;

(e) at the enterprise system, in response to a request for positioning data from a second mobile field unit, retrieving the position data;

5 (f) at the enterprise system, formatting the position data;

(g) at the enterprise system, transmitting the position data to the second mobile field unit; and

(h) at the second mobile field unit, displaying the position data.

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~~30.~~ A method for receiving and storing position data in a system having a plurality of mobile field units, an enterprise system, and a TCP/IP wireless network, comprising the following steps:

15 (a) at the enterprise system, receiving position data;

(b) parsing the position data;

(c) retrieving latitude and longitude coordinates from the position data;

20 (d) retrieving velocity and direction statistics from the position data;

(e) converting the latitude and longitude coordinates to plane coordinates; and

25 (f) storing the plane coordinates, velocity, and direction.

~~40.~~ A method for formatting position data in a system having a plurality of mobile field units, an enterprise system, and a TCP/IP wireless network, comprising the following steps:

30 (a) at the enterprise system, retrieving the position data;

(b) generating a first file comprising the position data;

35 (c) generating a second file, said second file being loadable by a web browser and having a reference to said first file wherein upon loading said second file in a

web browser, the web browser loads displays the position data stored in said first file.

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